



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/693,636 | 10/24/2003 | Angus Steele | 1-24389 | 8883 |

4859 7590 07/08/2005

MACMILLAN SOBANSKI & TODD, LLC
ONE MARITIME PLAZA FOURTH FLOOR
720 WATER STREET
TOLEDO, OH 43604-1619

EXAMINER

COLLADO, CYNTHIA FRANCISCA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3618

DATE MAILED: 07/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,636

Applicant(s)

STEELE ET AL.

Examiner

Cynthia F. Collado

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/24/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/24/2003
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5,7-13 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Kamen et al'698 (Us Pub No 2003/0226698).

Kamen discloses one or more devices for sensing an angle of a surface on which the wheelchair is supported (see figure 1, element 112) also see (column 2, paragraph 0027), a controller receiving input from the one or more devices, wherein the input corresponds to an angle of a surface on which the wheel chair is supported (see figure 1, element 106) also see (column 2, paragraph 0028), one of either control algorithm or lookup table used by the controller to control drive parameters of the wheelchair according to the input from the one or more devices (column 2, paragraph 0030).

Referring to claim 2, Kamen discloses one or more devices are absolute angle sensors (column 2, paragraph 0029 and 0030).

Referring to claim 3, Kamen discloses wherein one or more devices are on board inclinometers (see figure 3), (column 3, paragraph 0043, column 2, paragraph 0028).

Referring to claim 4, Kamen discloses the algorithm is a mathematical control algorithm (column 3, paragraph 0030), and (figure 8).

Referring to claim 5, Kamen discloses the drive parameters controlled by the controller include one or more of wheelchair acceleration, wheelchair deceleration, turning acceleration or deceleration and turning deceleration, velocity, or turning radius (column 2, paragraph 0028).

Referring to claims 7 and 8, Kamen discloses one or more devices for sensing at least one of a pitch angle or a roll angle of a surface on which the wheelchair is supported (see figure 1, element 112) also see (column 2, paragraph 0027), a controller receiving input from the one or more devices, the controller prevents wheelchair from changing from a configuration supporting a wheelchair occupant in a seated position to a configuration supporting a wheelchair in one reclined, tilted, lifted or standing position (see column 2, paragraph 0028).

Referring to claim 8, Kamen discloses one or more devices are absolute angle sensors (see column 2, paragraphs 0029 and 0030).

Referring to claim 10, Kamen discloses one or more devices are onboard inclinometers (column 3, paragraph 0043), (column 2, paragraph 0028) and (figure 3).

Referring to claim 11, Kamen discloses one or more drive wheels supporting the frame relative to a supporting surface (see figure 1, element 102), one or more drive motors for driving the one or more drive wheels (see figure 3, elements 311 and 312), one or more devices for sensing the angle of the supporting surface (see figure 3, elements 302 and 303), a controller connected to the one or more sensing devices for

Art Unit: 3618

receiving input data from the one or more sensing devices corresponding to the angle of the supporting surface, wherein the controller controls drive parameters of the one or more drive motors according to a combination of input data including the input data from the sensing devices and input data from the one or more drive motors corresponding to the velocity of the drive motors, and wherein the drive parameters controlled by the controller include one or more of wheelchair acceleration, deceleration, turning acceleration or deceleration, velocity, or turning radius (see column 2, paragraphs 0027,0028 and 0029).

Referring to claims 12 and 13, Kamen discloses wherein the wheelchair is adapted to be configured to various configurations and the controller prevents the wheelchair from changing to a less stable one of the configurations when the controller senses an input from at least one of the one or more devices indicating that the wheelchair is on a supporting surface with sufficient incline, controller prevents the wheelchair from changing from a configuration supporting a wheelchair occupant in a seated position to a configuration supporting a wheelchair in one of a reclined, tilted, lifted, or standing position when the controller senses an input from at least one or more devices indicating that the wheelchair is on a supporting surface with sufficient incline(see figure 1, element 106) also see (column 2, paragraph 0028).

Referring to claim 16, Kamen discloses one or more steering motors at least one of the one or more drive wheels, the controller further controlling parameters of the one

Art Unit: 3618

or more steering motors according to the combination of input data (see column 2, paragraph 0025)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 6, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al'698 (Us Pub No 2003/0226698) in view of Koerlin et al'265 (Us Patent No.6, 409,265).

Kamen does not specify "maximum" wheelchair acceleration, deceleration, it would have been obvious to one having ordinary skill in the art at the time the invention was made that a gear would not supersede "maximum" knowing the probability of pedestrian injury and damage to the driving mechanism will occur.

Art Unit: 3618

Koerlin et al discloses a wheel chair comprising an articulating seat, the controller receiving input data from the articulating seat corresponding to the position of the seat and further controlling the articulating seat according to the combination of input data and the input data from the articulating seat (see column 2, lines 49-66), Koerlin also discloses the articulating seat has a recline actuator decoder and the input data from the articulating seat is sensed by the controller from a recline actuator decoder (see column 3, lines 54-64).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 0226698 issued to Kamen et al teaches hybrid human/electrical powered vehicle.

US Patent No. 6409265 issued to Koerlin et al teaches a tilting and reclining wheelchair

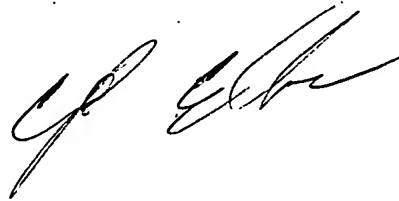
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia F. Collado whose telephone number is (571)2728315. The examiner can normally be reached on mon-fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571)2726914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CFC 6/27/05
CFC



CHRISTOPHER P. ELLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600